

Mr. W. H. Loaring, of Bickley, has given me the following notes: "In our old days at Margaret River, 1907-10, I was quite familiar with the Quokka, which was very numerous in the coastal country at that time. Also earlier, 1902-3, when we first went down there. I never saw Tammar in the Margaret River country, but we understood that they were present at Cape Naturaliste in those years. In the hill gullies south and east of Bickley the Quokka were particularly plentiful in the early 1920's, when their narrow and often covered runways went in all directions through the few chains of thick scrub bordering the streams, to which areas they confined themselves. The rabbit began to appear at that time, and the fox followed, and they dwindled away. From my notes I find a few were still present in the gullies as late as 1933-34. But it is many years now since I have seen any. In notes during a visit to the Margaret in 1933 I have one or two mentions of tracks being seen, but they were far less plentiful at that time than earlier. It is a good many years since I have been to the Margaret, but I understand they have vanished from there also.

"They appeared to shed a great deal of fur towards the end of winter, and my early notes mention the use of this by birds to line their nests, a note of August 14, 1921, on a nest of the New Holland Honeyeater being typical: ' . . . lined with Zamia wool with a covering of wallaby fur which is strewn plentifully about the ground amongst the creek-side tangles at the present time.'

"That the Quokka could swim strongly was demonstrated to us on one occasion at the Margaret River when one of the little animals, wounded in the foot and pressed by dogs, plunged into the waves and swam straight out to sea. In a few moments one of the dogs went after it and was to be seen treading water when on the crests of the waves in an endeavour to sight its quarry ahead of it. It eventually brought the unfortunate little wallaby back from a hundred yards out. Quokkas were snared and shot for food in those days, and were excellent eating."

## COMMUNAL NESTING AMONG WHITE-WINGED TRILLERS AND OTHER BIRDS

By S. R. WHITE, Government School, Morawa.

One of the distinctive features of the bird nesting season in the Morawa district is its short duration. During a brief period, following the first fall of sufficient rain, life flourishes. Blossom and insects are abundant and when optimum conditions prevail the bird population is astounding in its density and in the high tempo of its activity. Then with surprising suddenness all declines.

A remarkable characteristic of the local bird population during the breeding season is the manner in which birds, not only of the same species but of different species, appear to congregate in small communities. There appears to be a tendency for birds to nest in proximity to one another. Such recognisable islands of mixed bird population have been observed to include Crimson and

White-fronted Chats (*Epthianura tricolor* and *E. albifrons*), White-winged Trillers (*Lalage sueurii*), Red-capped Robins (*Petroeca goodenovii*), Willy Wagtails (*Rhipidura leucophrys*), Brown Flycatchers (*Micropeta leucophæa*), Magpie Larks (*Grallina cyanoleuca*), Black-faced Cuckoo-Shrikes (*Coracina novæ-hollandiæ*), Zebra Finches (*Poephila castanotis*) and Black-faced Wood-Swallows (*Artamus cinereus*).

It is possible that aggregations of this kind may be caused by lack of suitable foraging territory, by the distribution of food supply or by the limitation of suitable nesting sites, but the writer feels that it may also have some relationship to climatic control. In this area only during the months of July and August may a "water-surplus" be expected (Gentilli, W.A. *Naturalist*, vol 1, p. 123). With abundant food supplies available over such a limited span it is necessary that birds should initiate and conclude their breeding cycles in synchronisation with optimum conditions.

Evidence collected by some observers (Fraser Darling, *Bird Flocks and the Breeding Cycle*, 1938) indicate that community-nesting birds, by mutual mass-stimulation, achieve a shorter and better synchronised nesting cycle than pairs nesting alone or in small groups, which usually have a protracted nesting. E. Armstrong (*Bird Display and Behaviour*, 1947, p. 345), states, concerning the presence and activities of other birds and their effect on the breeding cycle, "Evidence from the study of birds displaying socially or breeding colonially supports the view that birds are stimulated sexually by being amongst their fellows, hearing their calls, and perceiving their display performances. They may even be excited sexually by the presence of other species."

In many species of birds the communal nesting habit is characteristic. Local birds such as the White-headed Stilt (*Himantopus himantopus*) and Avocet (*Recurvirostra novæ-hollandiæ*) which feed on the aquatic life of the salt-lakes might be included in this category. The period over which their breeding season may extend is both limited and hazardous for it depends not only upon local rains but upon inland falls which might link the lake system and cause a flow. Local birds of both species are usually to be found nesting together and in small groups of from two to a dozen or so pairs.

All four species of swallows nest locally. Fairy Martins (*Hylodichthys ariel*) have only been observed in the usual compact nesting associations. Tree-Martins (*H. nigricans*) have only been recorded in groups, the main nesting area being under the caves of the Morawa Hotel. Welcome Swallows (*Hirundo neoxena*) and White-backed Swallows (*Cheramœca leucosterna*) have been found nesting both singly and in small groups. Any attempt to explain the social nesting habit of swallows must be closely related to food supply, but from general observation it is apparent that water is also a very important direct requirement. It is necessary to both the mud builders (Welcome Swallow and Fairy Martin); it is also probable that before the White-backed Swallow can form its nesting tunnels there must be some moisture to bind the

gravel soils which it seems to prefer here. Precipitation has been observed to stimulate nest building activities among the local Tree-Martin population (*W.A. Naturalist*, vol. 2, p. 141).

Other species occurring in my notes as showing a distinct tendency to form nesting groups are the White-fronted Chat, Crimson Chat, White-fronted Honeyeater (*Gliciphila albifrons*), Black Honeyeater (*Myzomela nigra*) and White-winged Triller.

The habit is widely recognised in the White-fronted Chat (Wheeler, *Emu*, vol. 50, p. 81; Sharland, *Tasmanian Birds*, 1945; Cooper, *Wild Life*, vol. 12, 1949, p. 131). The same feature has been recorded for the Crimson Chat (White, *W.A. Naturalist*, vol. 2, 1950, p. 49).

The two species of Honeyeaters are both, significantly, characteristic "dry area" birds. Optimum food conditions would be closely associated with climatic factors and the duration of the favourable nesting period fairly rigidly limited. Cooper (*Wild Life*, vol. 15, February, 1952, p. 164) says of the White-fronted Honeyeater, "Generally two or more pairs are found nesting in one area, and then a gap to the next birds." Other observers have noted somewhat similar tendencies in the Black Honeyeater.

A remarkable feature of the nesting groups of Black Honeyeaters and the nesting communities of birds associated with them, was the apparent preference for contact with other birds. The habitat consisted of widely-scattered mounds of higher land extending across salt pans and sapphire flats some two miles in width. These low ridges sparsely clothed in woody shrubs up to 12 feet in height, and grasses, were typically identical. One might have expected to find the bird populations more or less uniformly scattered throughout, but this was not so, either during the 1950 or 1951 seasons. At both times concentrations of breeding birds appeared in one section only, while other adjacent and apparently similar habitats were ignored. The centres of concentration during each of the two seasons were separated by almost two miles.

My field notes covering a three year period in the Morawa district indicate that here the White-winged Triller usually forms nesting groups.

## FIELD NOTES ON THE COMMUNAL NESTING OF TRILLERS

1949.

The discovery of three occupied nests within a radius of 30 yards and a report from a school boy of four other nests closely grouped, suggested a more intensive search for Trillers' nests in the 1950 season.

1950.

A special effort was made to locate and watch all Trillers settled on territories in and adjacent to Morawa townsite. Sixteen nests were recorded in three distinct communities. Another community was the subject of observation by one of the senior school girls, Jennifer Rogers, and its details were described by her in *Bird Study, Gould League Notes, W.A., 1951-52*, 1951, p. 5.